REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

35 USC §112, First Paragraph Rejection Overcome by Amendment

By the above amendment, Applicant has deleted the objected to recitation of the time limitation for the claimed injection molding and extrusion processes, to overcome the objection to Claims 3 and 4 under 35 USC §112, first paragraph. While the time allotted for these processes is not distinctly claimed nor specifically disclosed in the specification, it is recognized by persons of skill in the art that these are continuous processes that occur almost instantaneously. By definition, an extrusion process must harden in a very short time so that the product shape is well defined allowing for it to be removed from the extrusion device. Similarly, It is uneconomical for an injection molding device to retain an injection molded product for too long a period, so that the injection molding process must also occur in a very short time period. Thus, despite a specified time period for these processes not being recited in Claims 3 and 4, it will be readily recognized by a person of ordinary skill that these process must take less than 5 minutes for the hardening period of the product derived form use of these processes, or they would not be feasible to use. The very short or rapid heating time period is a distinguishing and important feature of the present invention, as is described at page 15, lines 22-25.

Similarly, the rejection to Claim 6 has been overcome by the amendment to read "a pressure of 10 kg/cm^2" which is supported by the specification as originally filed at page 11, line 11, (numbered paragraph [0050] of the published application).

The Rejection of Claim 5 as Either Anticipated or Obvious is Improper

The Office Action dated March 27, 2008 indicates that Claim 5 is rejected over the Billwiller (US Patent No. 813,321). Billwiller describes a method of manufacture in which a wet compound of building material is formed under pressure "for some twelve to sixteen hours" see page 1, line 105.

Claim 5 recites the limitation that the admixture is "rapidly hardened" for a period of from 2 to 5 minutes under specified pressure and temperature parameters. This limitation, although generally present in the claims of the original filed application, was apparently not given any weight in respect of the patentability of at least Claims 1 and 2, and thus the temporal limitation, which more particularly points out and distinctly claims the subject matter of Applicant's invention, with respect to the term "rapidly hardened" recited in the original application claims, has been added to more clearly recite the Applicant's invention.

While it is recognized that the product claimed in Claim 6 is a product-by process, it is nevertheless sufficiently different from the product produced in accordance with the teachings of Billwiller because Billwiller utilizes a method that requires a mineral oil to maintain the item integrity. Thus, the final product that results from the process taught by Billwiller includes such a mineral oil impregnated therein to thereby reduce the water absorbing properties of eh finished product. Conversely, patentability here is premised on the product produced by the process, which is significantly different from that of the reference, in that it contains no mineral oil as a binder or as an additive to provide moisture repellant features. The product made by a process as taught by Billwiller will fail to describe or show any product produced by that process that is the same as the product produced by the method claimed herein. Billwiller lacking a showing that his product does not contain a mineral oil or that this is an obvious result, renders Claims 5 and 6 patentable.

The Rejection of Claims 1, 2 and 6 under 35 USC §103(a) as Obvious is Improper

Claims 1, 2 and 6 are rejected under 35 USC §103(a) as obvious over Billwiller in view of Stalego (U.S. Pat. No. 4,312,674). Billwiller is relied upon as disclosing an insulated block formed by creating an aqueous paste of water, magnesium oxide and vegetable fiber and an impregnating oil, which is then pressed to obtain the desired shape of the block. The rejection recognizes that Billwiller does not disclose the method wherein pressure is applied in a pre-heated mold. Stalego is relied upon for teaching a method of making a magnesium oxide cement article by mixing magnesium oxide cement forming materials and water, then molding the materials under heat and pressure to form the product, where the molding is performed under pressure of 400 psi and at a temperature of 210°F.

As an initial observation, Stalego fails to disclose any type of filler beyond the amorphous silica or glass fiber reinforcing disclosed in Column 2, and the rejection under §102 (b) fails at least on that point. Moreover, the Stalego disclosure does not appear to meet the limitation in Claims 1, 2 and 6 of a vegetable powder, vegetable fiber, mineral powder, and mineral fiber, which are not preferred by the method because they are stated to cause a surface reaction with the mag-oxy cement composition. Moreover, the Stalego example relied upon, example 1, does not provide the building material produced by the present method, but in fact requires several plies of "continuous strand swirl mat" (Column 2, lines 63-68 and Column 3, lines 1 to produce a "flat specimen" rather than a building material of some thickness, such as that described and illustrated in the present invention. It is noted that the mold in is about $1/8^{th}$ inch deep see Column 2, line 66.

Responsive to the recitation in Claims 1,2 5 and 6 of the slight temporal or short time period limitation, the rejection relies on the teachings of Billwiller in view of Stalego. However, it is respectfully submitted that the proposed modification of Billwiller with the teachings of Stalego is

not possible because of the teaching against this very modification in both Billwiller and Stalego. Billwiller teaches that pressure must be applied for a **long** time, 12-16 hours. See Column 1, lines 27-33. "If pressure is employed for a moment or a short time sufficient to bring the paste into shape, the hardness of the produced blocks is not sufficient for actual use of the blocks without adding cements of high cementing quality, such as chlorid (sic) of magnesium." In a contrarywise vein, Stalego teaches the use of at least an approximately equal amount of magnesium chloride as that of the magnesium oxide in order to overcome the problem of the composition to bind itself to other elements in the insulating materials made by the process. Thus, both references teach against the modification as proposed by the rejection, and the rejection of Claims 1, 2 and 6 are improper.

Moreover, the use of magnesium chloride is no longer environmentally permitted, and the block made by the process of Stalego would not be able to be sold, thus lacking utility. Claims 1-6 have been amended to include the limitation of "a magnesium chloride-free admixture" after all the elements have been mixed, sot that it can be used in today's world.

Additionally, there is no showing in the rejection why a person of ordinary skill in the art would be led to modify the process of making solid insulating blocks (building materials) by using the teachings in a reference describing a method of making ceramic articles from the described materials, other than the teaching of the present application, which would only provide an improper hindsight reasoning to the rejection.

The Office Action further indicates that Claims 3 and 4 are rejected under 35 U.S.C. §103(a) over Billwiller in view of Suh (US Pat. No. 4,548,773) and in view of Takahashi et al. (US Pat. No. 4,764,102), respectively. Suh is relied upon as teaching the use of an injection molding device for production of a ceramic article, and Takahashi is relied upon as teaching the method of forming a ceramic article that is extruded to form the desired shape. It is respectfully submitted

that this rejection is improper for the reasons set forth above, and additionally because the mere ability to provide a desirable function is taught in a general sense, the performance of that function, i.e., injection molding or extrusion, does not necessarily translate to the same process being performed with the materials described and claimed by the claims of this application.

The modification proposed in the rejection of Claim 3, to render the Billwiller process into an injection mold fails to teach how an injection mold could be maintained for twelve to sixteen hours, and still be functional to provide the necessary amount of product, and still make sufficient product for commercial processing. Also, the modification proposed in the rejection of Claim 4, to render the Billwiller process by adding a heating element to an extruder fails to teach how the extruder could maintain the extruded product heated for "twelve to sixteen hours," and still be functional to provide the necessary amount of product, and still make sufficient product for commercial processing.

None of the rejections based on the references of record, whether taken individually or in combination, render the claims as amended either anticipated or obvious thereover. All the outstanding rejections have been overcome. The arguments made in the Office Action (at page 8) that it would have been obvious for a person having skill in the art to have combined the method disclosed by Billwiller with the method of extruding taught by Takahashi because this is an effective way of making a ceramic article are improper in that nothing in either of these two references indicates how the method as taught by Billwiller can possibly be modified to allow the materials therein to be used in an extrusion process, and in that regard the rejection fails to show even a *prima facie* case of obviousness. Moreover, the lack of such a teaching is supported by the argument that a person of ordinary skill "would recognize when hardening in the heating device was completed and would be motivated to stop the heating at that time in order to avoid costs, is

itself counterintuitive. Leaving aside the issue of what would motivate a person of ordinary skill, other than perhaps hindsight reasoning, to continually check the hardening parameter of a product in view of the contrary teaching in Billwiller of long hardening and cooling times, the references themselves fail to show why someone would provide a magnesium chloride-free admixture, as claimed. Additionally, the motivation to stop the hardening process early is one of an improper obvious to try standard, and fails to support the rejection.

For the above reasons, and also for the reasons set forth in Applicant's response to previous rejections, it is considered that the claims, as amended, find support in the application specification as filed, and that the combination of elements recited in the pending claims, as amended, distinguish over the references of record. Accordingly, reconsideration and withdrawal of the outstanding rejections are respectfully requested and an indication of allowable subject matter is earnestly solicited.

Respectfully submitted,

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